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Calibrating a Food Thermometer

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Extension Extra

ExEx14103

College of Agriculture & Biological Sciences / College of Family & Consumer Sciences / USDA

Calibrating a Food Thermometer

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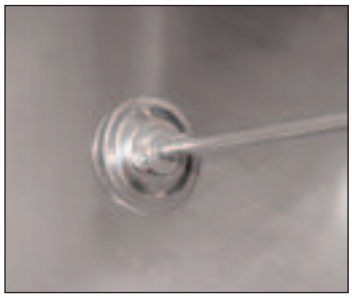
Using a properly calibrated thermometer is essential to ensure that foods are cooked to the correct temperature, chilled rapidly, or held at proper temperatures after cooking. A thermometer should be calibrated before the first use, after an extreme temperature change (such as going from hot food to frozen food), if the thermometer is dropped, or if it is used many times. Clean thermometers after each use by washing in hot soapy water, rinsing, sanitizing, and air drying.



Use a suitable tool to turn the nut under the head of the thermometer so the indicator is set on 32ºF for ice point method or 212ºF for boiling point method.

Ice point method

1. Fill a large glass with crushed ice or small cubes and clean tap water; stir well. More ice may need to be added as cubes settle.
2. Insert the probe at least 2 inches into the water without touching the sides or bottom of the glass. Wait at least 30 seconds or until the indicator stops moving.
3. Keeping the thermometer stem in the water, hold the calibration nut under the head with fingers or suitable tool to turn the thermometer head so the pointer reads 32ºF (0ºC).

Insert thermometer into ice water without touching sides and bottom of glass.

Boiling point method

1. Insert the sensing area of the thermometer at least 2 inches into boiling water.
2. Wait until the indicator stops moving.
3. Adjust so that indicator reads 212ºF (100ºC). The boiling point differs with altitude. The boiling point lowers about 1ºF (0.6ºC) for every 550 feet above sea level.

Calibrating a digital thermometer

1. Use either the ice-point or boiling point method.
2. Adjust the temperature setting by pressing the reset button.

Adapted from SD Department of Health Weekly Thermometer Calibration Chart and Iowa State University School HACCP Project. Funds for this publication provided by USDA CSREES National Integrated Food Safety Initiative 20003-51110-01714.

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